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RAILWAYS<JNR> TOSHIBA
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MORIGUCHI SHINICHI
SAIMA TORU(54) DOUBLE-HELICAL GEAR PROVIDED WITH
CENTERING FACULTY

(57) Abstract:

PURPOSE: To permit a double-helical gear to be provided with automatic centering function by dividing a gear unit into a double-helical gear wheel and a gear core and connecting the both shiftably in the axial direction by means of both-sides deflecting plates.

CONSTITUTION: A gear core 21 and a double-helical gear wheel 23 are formed separately, and the gear core 21 is equipped with a rib 22 in integral form and the double-helical gear wheel 23 is constituted of a pair of helical gear wheels 24 and 25 which are symmetrical at right and left and are equipped with the teeth parts 24A and 25A facing in opposite directions to each other. As for the both-sides deflecting plates 29 and 30 constituted of the laminated layers of plural pieces of thin leaf springs having bores disc form, the inner peripheral side parts are held onto the both sides of the rib 22 of the gear core 21 by retainer seats 31 and 32 and fastened by the bolts 33 arranged in the peripheral direction, and the outer peripheral side is held onto the outside of the boss parts 24B and 25B of the right and left helical-gear wheels of the double-helical gear wheel 23 by retainer seats 26 and 27 and fastened by the bolts 28 arranged at equal intervals in the peripheral direction. Thus, the

double-helical gear wheel can be displaced in the axial direction in relation to the gear core by the operation of the both-sides deflecting plates in lamination form of thin leaf springs, and centering function can be developed.

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